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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,360	06/02/2006	Gabriel Roussie	291278US6X PCT	3635
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER KEE, FANNIE C	
			ART UNIT	PAPER NUMBER
			3679	
			NOTIFICATION DATE	DELIVERY MODE
			06/25/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/581,360	<b>Applicant(s)</b> ROUSSIE, GABRIEL	
	<b>Examiner</b> Fannie Kee	<b>Art Unit</b> 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 30-58 is/are pending in the application.
- 4a) Of the above claim(s) 31-42 and 53-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30,43-52,57 and 58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Species III drawn to Figure 3 and claims 30, 43-52, 57, and 58 in the reply filed on 3/6/09 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 32-34, 37-42, and 53-56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/6/09.

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 4 – 1c, 2c, 3c, 4c, 8c; Figure 5 – 1d, 2d, 3d, 4d; and, Figure 6 – 3e, 4e, 65.

4. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

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“Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

5. The abstract of the disclosure is objected to because the abstract should not speak to the purported merits of the invention and should only speak to the technical disclosure of the invention of the instant application. Lines 5-9 starting with “Thus, micro-cracks caused by friction...” should be deleted.

Correction is required. See MPEP § 608.01(b).

6. The specification is objected to because section titles are missing. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant’s use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase “Not Applicable” should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

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- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

7. The disclosure is objected to because of the following informalities:

- a. The following reference characters are not mentioned in the description: Figure 4 – 1c, 2c, 3c, 4c, 8c; Figure 5 – 1d, 2d, 3d, 4d; and, Figure 6 – 3e, 4e, 65.
- b. Page 7, lines 37 – add the word --are-- after the word "elements".
- c. Page 8, lines 16 – add a space between the words "25" and "via".
- d. Page 9, line 17 – add an --s-- to the end of the word "portion" and delete the words "enables to".
- e. Page 9, line 37 – delete the word "36,".
- f. Page 9, line 38 – add an --s-- to the end of the word "portion".
- g. Page 10, line 1 –delete the words "enables to".
- h. Page 10, lines 16-17 – delete the words "enables to" and add an --s-- to the end of the word "reduce".

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- i. Page 10, lines 19 – delete the words “enables to” and add an --s-- to the end of the word “ease”.
- j. Page 10, line 34 – delete the words “enables to” and add an --s-- to the end of the word “produce”.
- k. Page 10, lines 35-36 – delete the words “enables to” and add an --s-- to the end of the word “distribute”.

Correction is required.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 30, 43-49, 57, and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Dailey U.S. Patent No. 4,346,920.

With regard to claim 30, and as seen in Figure 3, Dailey discloses a method to improve fatigue resistance of a threaded tubular connection subjected to stress variations, the connection including a male tubular element (212) including a tapered male threading, and a female tubular element (213) including a tapered female threading that cooperates with the male threading by makeup to produce a rigid mutual connection of the tubular elements with radial interference between radial load transfer zones of the threadings,

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wherein the threadings each have a load flank extending substantially perpendicularly to an axis of the threadings, and wherein radial load transfer zones are at a radial distance from envelopes of thread roots of the male and female threadings and form an angle of less than  $40^{\circ}$  with the axis of the threadings.

With regard to claim 43, and as seen in Figure 3, Dailey discloses the radial load transfer zones being ramps constituting stabbing flanks of the male and female threadings over a major portion of a radial height thereof.

With regard to claim 44, and as seen in Figure 3, Dailey discloses an angle between the ramps and the axis of the threadings being in a range of  $20^{\circ}$  to  $40^{\circ}$ .

With regard to claim 45, and as seen in Figure 3, Dailey discloses an angle between the ramps and the axis of the threadings being about  $27^{\circ}$ .

With regard to claim 46, and as seen in Figure 3, Dailey discloses a profile of the male threading including a first concave rounded portion defining the thread root and tangential to the ramp.

With regard to claim 47, and as seen in Figure 3, Dailey discloses a profile of the male threading including a second concave rounded portion with a smaller radius of curvature than the first rounded portion and tangential thereto and to the load flank.

With regard to claim 48, and as seen in Figure 3, Dailey discloses a groove (area at R) defining the female thread root extending axially from a first wall constituted by the load flank to a second wall connected to the ramp of the female threading.

With regard to claim 49, and as seen in Figure 3, Dailey discloses a profile of the groove including a central concave rounded portion framed by first and second rounded concave portions respectively tangential to the first and second walls and with a smaller radius of curvature than the central rounded portion.

With regard to claim 57, and as seen in Figure 3, Dailey discloses a threaded tubular connection comprising a male tubular element (212) including a tapered male threading, and a female tubular element (213) including a tapered female threading that cooperates with the male threading by makeup to produce a rigid mutual connection of the tubular elements with radial interference between radial load transfer zones of the threadings, in which the radial load transfer zones are ramps constituting the stabbing flanks of the male and female threadings over the major portion of the radial height thereof, and the profile of the male threading including a first concave rounded portion defining the thread root and tangential to the ramp.

With regard to claim 58, and as seen in Figure 3, Dailey discloses a threaded tubular connection comprising a male tubular element (212) including a tapered male threading, and a female tubular element (213) including a tapered female threading that cooperates with the male



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threading by makeup to produce a rigid mutual connection of the tubular elements with radial interference between radial load transfer zones of the threadings, in which the radial load transfer zones are ramps constituting the stabbing flanks of the male and female threadings over the major portion of the radial height thereof and a groove (area at R) defining the female thread root extends axially from a first wall constituted by the load flank to a second wall that is connected to the ramp of the female threading.

10. Claims 30, 43, 48, and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Saunders et al U.S. Patent No. 4,549,754.

With regard to claim 30, and as seen in Figures 5 and 9, Saunders et al disclose a method to improve fatigue resistance of a threaded tubular connection subjected to stress variations, the connection including a male tubular element (11) including a tapered male threading, and a female tubular element (12) including a tapered female threading that cooperates with the male threading by makeup to produce a rigid mutual connection of the tubular elements with radial interference between radial load transfer zones of the threadings,

wherein the threadings each have a load flank extending substantially perpendicularly to an axis of the threadings, and wherein radial load transfer zones are at a radial distance from envelopes of thread roots of the male and female threadings and form an angle of less than 40° with the axis of the threadings.

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With regard to claim 43, and as seen in Figures 5 and 9, Saunders et al disclose the radial load transfer zones being ramps constituting stabbing flanks of the male and female threadings over a major portion of a radial height thereof.

With regard to claim 48, and as seen in Figures 5 and 9, Saunders et al disclose a groove (area at 21) defining the female thread root extending axially from a first wall constituted by the load flank to a second wall connected to the ramp of the female threading.

With regard to claim 50, and as seen in Figures 5 and 9, Saunders et al disclose a profile of the female threading including a convex rounded portion tangential to a second rounded portion and to the ramp, a zone of inflexion between the convex rounded portion and the second rounded portion constituting the second wall.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dailey.

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With regard to claim 51, Dailey discloses the claimed invention but does not disclose that the radial load transfer zones are provided in a zone of full height threads or of threads termed perfect threads.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the radial load transfer zones be provided in a zone of full height threads or of threads termed perfect threads because a change in the shape of a prior art device is a design consideration within the level of skill of one skilled in the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

With regard to claim 52, Dailey discloses the claimed invention but does not disclose that the radial load transfer zones are also provided in a zone of imperfect threads, or in a zone of run- out threads.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the radial load transfer zones be provided in a zone of imperfect threads or in a zone of run-out threads because a change in the shape of a prior art device is a design consideration within the level of skill of one skilled in the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

### ***Conclusion***

13. Franz, Reimert, Chuang, Nobileau, Wing, Sugimura, Eslinger, Smith et al, Yamamoto et al, and Galle, Jr. et al are being cited to show examples of threaded connections with a male

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tubular element and a female tubular element where the threadings have radial load transfer zones which are ramps.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fannie Kee whose telephone number is (571) 272-1820. The examiner can normally be reached on 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron M Dunwoody/  
Primary Examiner, Art Unit 3679

/F. K./  
Examiner, Art Unit 3679  
June 21, 2009